POLYPEPTIDE VARIANTS WITH ALTERED EFFECTOR FUNCTION Leonard Presta Serial No. 09/483,588
Docket No. P1726R1

APPHOVED () G. F.I.G.
BY CLASS SUBCLASS

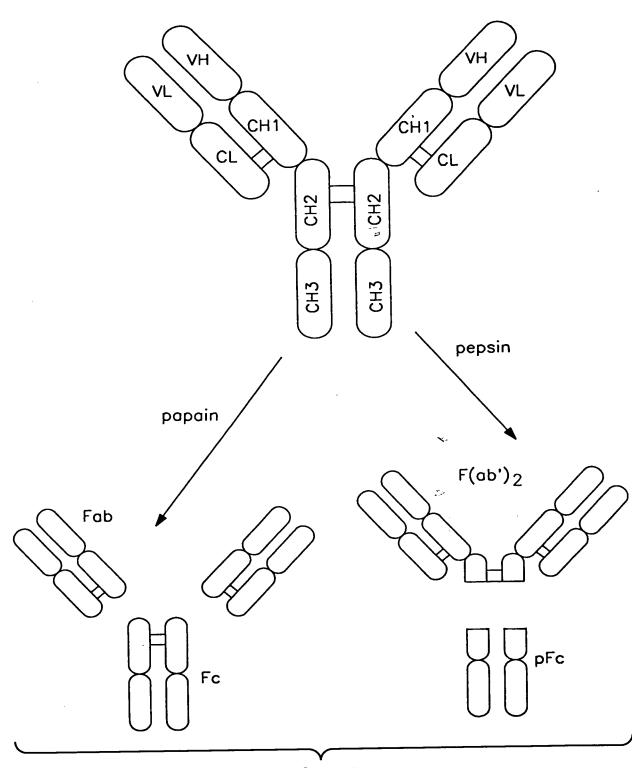


FIG._1

SUBCLASS

APPROVED O.G. FIG.
BY CLASS SUB

DRAFTSMAN

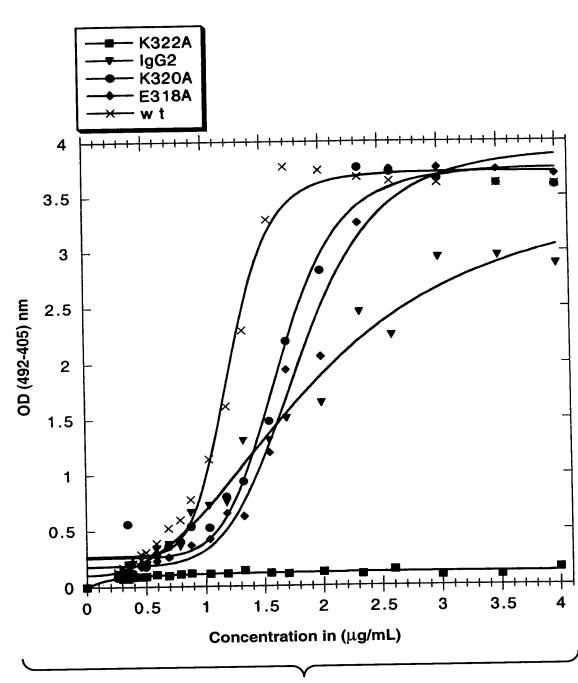


FIG._2

3/21 K322A P329A P331A APPROVED O.G. FIG.
BY CLASS SUBCLASS DRAFTSMAN × 3.5 × 3 2.5 OD (492-405) nm 2 1.5 1 0.5 0 100 20 40 60 80 Concentration of antibody in (μ g/mL) FIG._3

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SUBCLASS APPROVED O.G. FIG. CLASS DRAFTSMAN Ы

(E27) - Light Chain

NNFYPREAKV QWKVDNALQS GNSQESVTEQ DSKDSTYSLS STLTLSKADY EKHKVYACEV THQGLSSPVT SGTDFTLTIS SLQPEDFATY YCQQSHEDPY TFGQGTKVEI KRTVAAPSVF IFPPSDEQLK SGTASVVCLL DIQLTQSPSS LSASVGDRVT ITCRASKPVD GEGDSYMNWY QQKPGKAPKL LIYAASYLES GVPSRFSGSG KSFNRGEC

FIG._4A

(E27) - Heavy Chain

EMTKNQVSLT CLVKGFYPSD IAVEWESNGQ PENNYKTTPP VLDSDGSFFL YSKLTVDKSR SKAKGOPREP EVQLVESGGG LVQPGGSLRL SCAVSGYSIT SGYSWNWIRQ APGKGLEWVA SIKYSGETKY NPSVKGRITI SASTKGPSVF PLAPSSKSTS TYICHVNHKP SHEDPEVKFN TVPSSSLGTQ PEVTCVVVDV WYVDGVEVHN AKTKPREEQY NSTYRVVSVL TVLHQDWLNG KEYKCKVSNK ALPAPIEKTI SRDDSKNTFY LOMNSLRAED TAVYYCARGS HYFGHWHFAV WGQGTLVTVS KDYFPEPVTV SWNSGALTSG VHTFPAVLQS SGLYSLSSVV PPCPAPELLG GPSVFLFPPK PKDTLMISRT WQQGNVFSCS VMHEALHNHY TQKSLSLSPG K PKSCDKTHTC SNTKVDKKVE QVYTLPPSRE GGTAALGCLV

ALTERED EFFECTOR FUNCTION
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APPHOVED O.G. FIG.

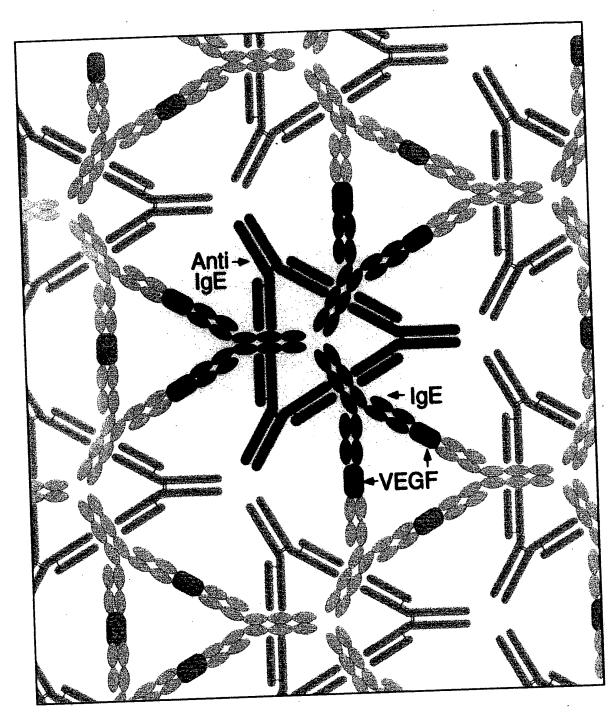


FIG._5

Docket No. P1726R1 7/21 □ S324A — K326A — K334A — P329A - P331A - E333A - 293-Wt-C2B8 - CHO-Wt-C2B8 - Y278A - T335A 4 3.5 0 3 2.5 OD (492-405) nm 2 1.5 1 0.5 0 2 8 1 0 Concentration in μ g/mL FIG._8

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APPROVED O.G. FIG.
BY CLASS SUBCLASS

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APPHOVED O.G. FIG.
BY CLASS SUBCLASS

BY DRAFTSMAN

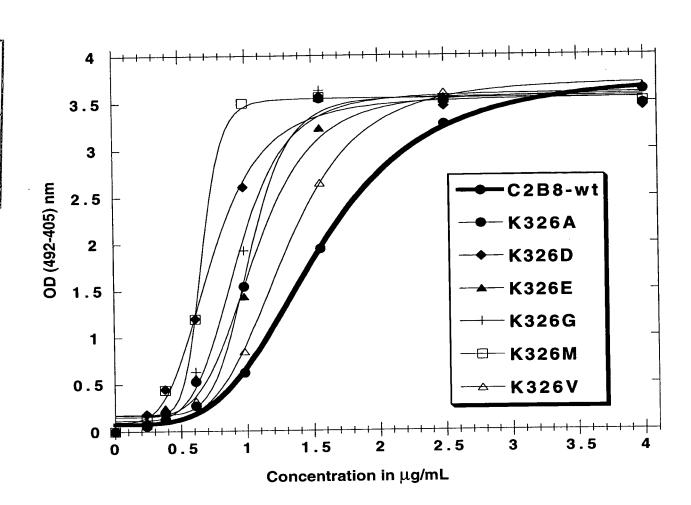


FIG._9

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ALTERED EFFECTOR FUNCTION
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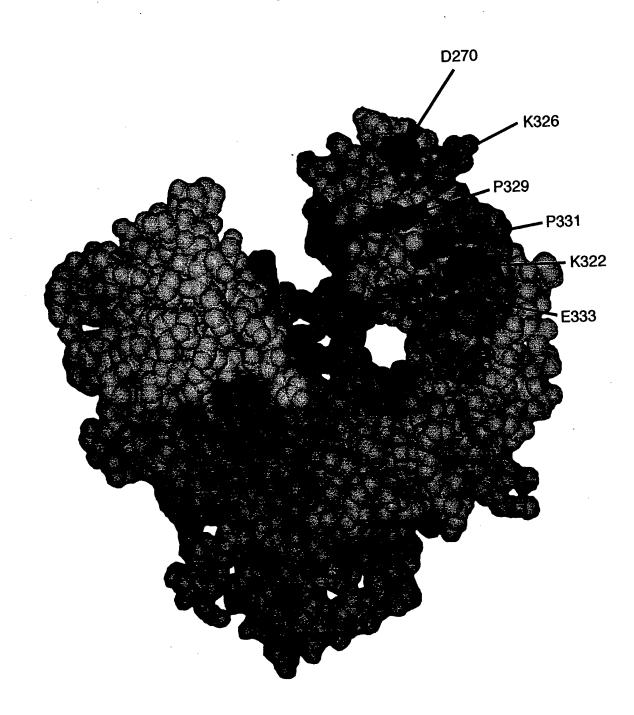


FIG._10

POLYPEPTIDE VARIANTS WITH ALTERED EFFECTOR FUNCTION
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APPROVED O.G. FIG.
BY CLASS SUBCLASS

BY DRAFTSMAN

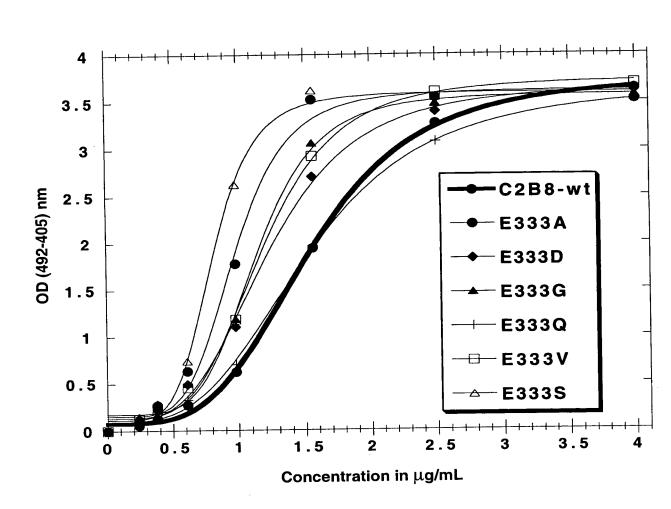
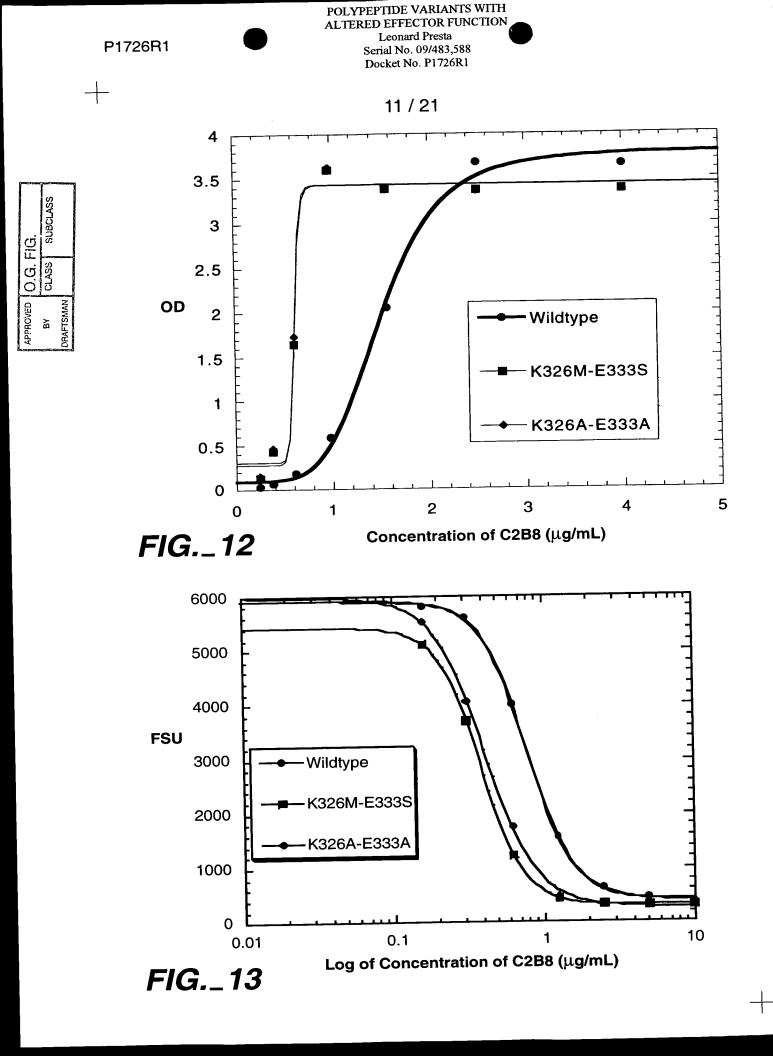


FIG._11



POLYPEPTIDE VARIANTS WITH ALTERED EFFECTOR FUNCTION

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= 1.54

APPINATED O.G. FIG.
BY CLASS SUI

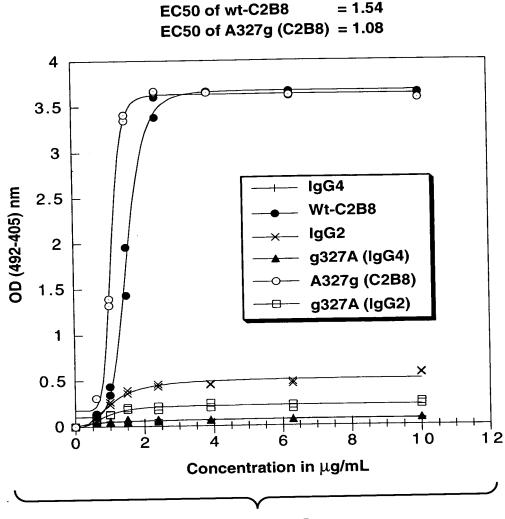


FIG._14

.1

IgG (μg/mL)

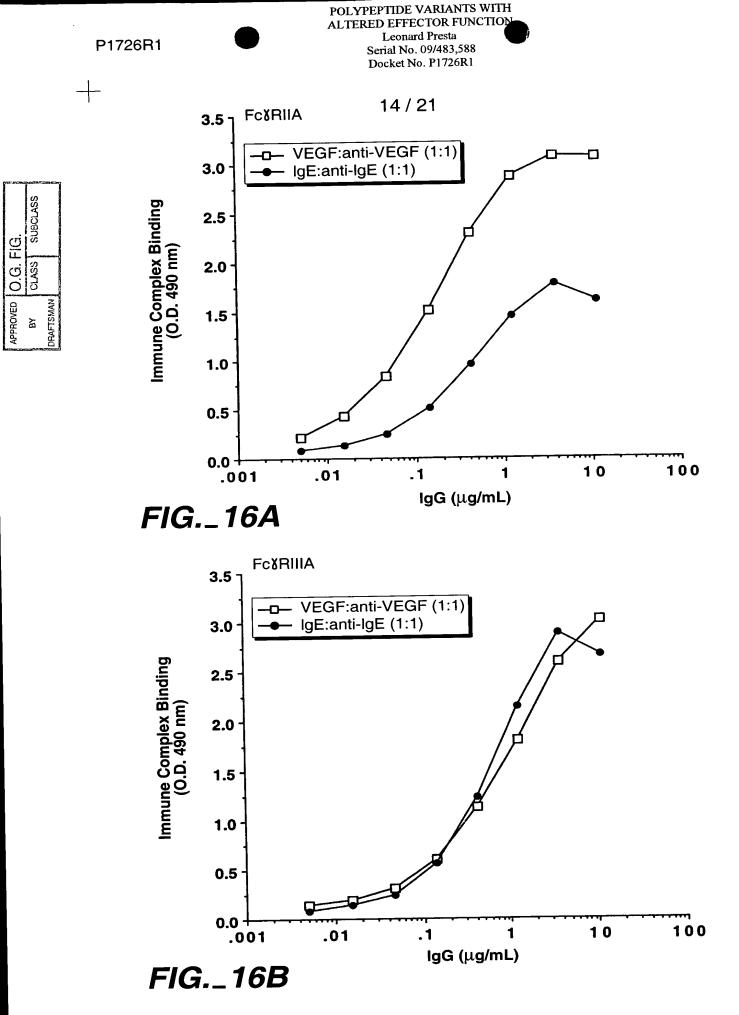
100

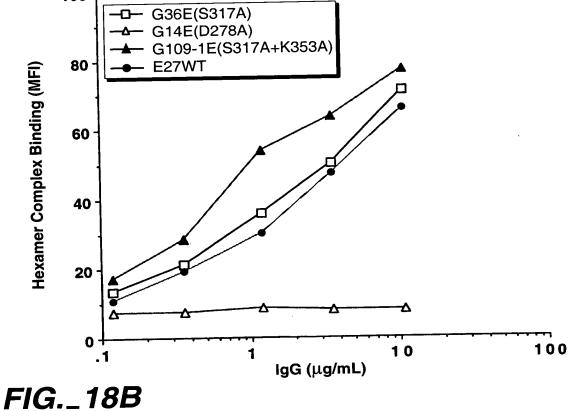
10

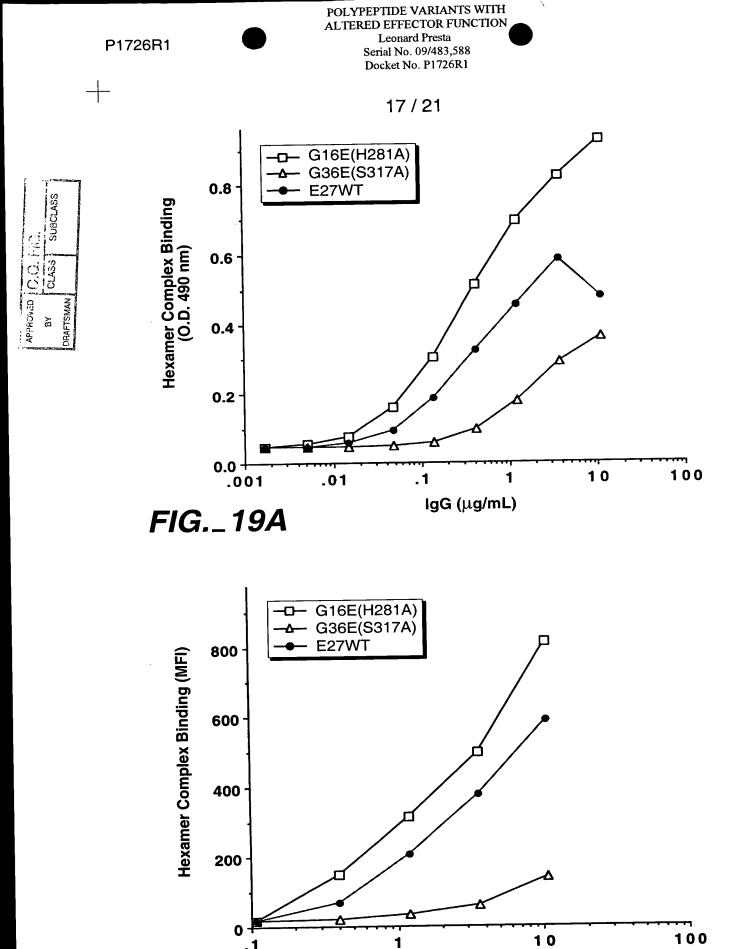
0.0

FIG._15B

.01







lgG (μg/mL)

FIG._19B

POLYPEPTIDE VARIANTS WITH ALTERED EFFECTOR FUNCTION
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APPROVED 1 O.G. FIG.

BY GLASS SUBCLASS

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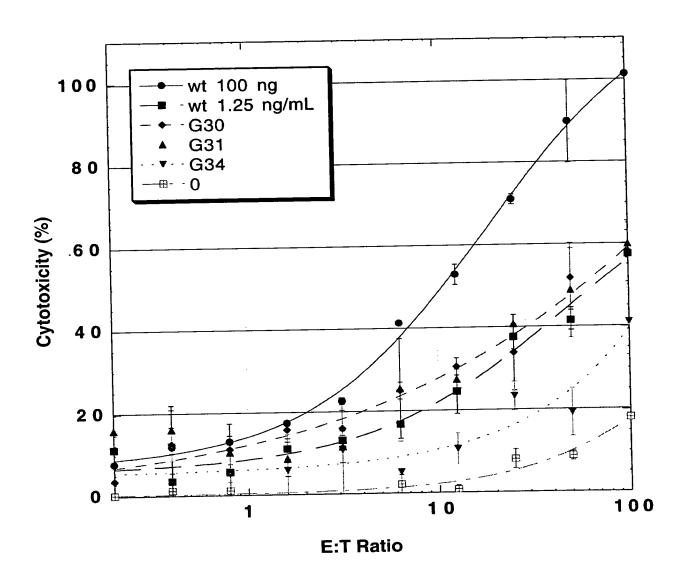
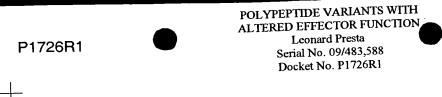


FIG._20



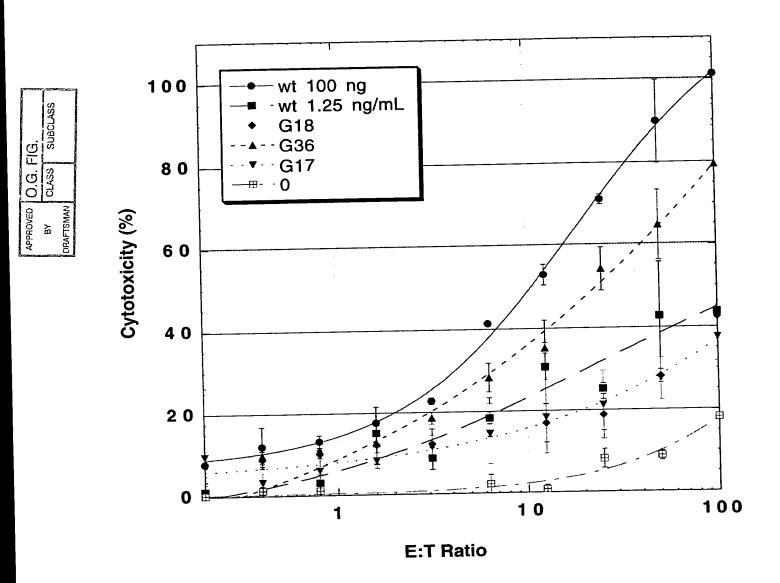


FIG._21

murIgG2B murIgG3 EGLKNYYLKKTISRSPGK EALHNHHTQKNLSRSPGK

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humIgG1 humIgG2 humIgG3 humIgG4 murIgG1 murIgG2A	240 250 260 270 PAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYV PAP-PVAGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVQFNWYV PAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVQFKWYV PAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQFNWYV TVPEVSSVFIFPPKPKDVLTITLTPKVTCVVVDISKDDPEVQFSWFV PAPNLLGGPSVFIFPPKIKDVLMISLSPIVTCVVVDVSEDDPDVQISWFV PAPNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFV
murIgG2B murIgG3	PPGNILGGPSVFIFPPKPKDALMISLTPKVTCVVVDVSEDDPDVHVSWFV
humIgG1 humIgG2 humIgG3 humIgG4 murIgG1 murIgG2A murIgG2A	80 290 300 310 320 DGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALP DGVEVHNAKTKPREEQFNSTFRVVSVLTVVHQDWLNGKEYKCKVSNKGLP DGVEVHNAKTKPREEQFNSTFRVVSVLTVLHQDWLNGKEYKCKVSNKALP DGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLP DDVEVHTAQTQPREEQFNSTFRSVSELPIMHQDCLNGKEFKCRVNSAAFP NNVEVHTAQTQTHREDYNSTLRVVSALPIQHQDWMSGKEFKCKVNNKDLP
murIgG3	DNKEVHTAWTQPREAQYNSTFRVVSALPIQHQDWMRGKEFKCKVNNKALP
humIgG1	330 340 350 360 370 APIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAV D L
humIgG2 humIgG3 humIgG4 murIgG1 murIgG2A murIgG2B murIgG3	APIEKTISKTKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAV APIEKTISKTKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAV SSIEKTISKAKGQPREPQVYTLPPSQEEMTKNQVSLTCLVKGFYPSDIAV APIEKTISKTKGRPKAPQVYTIPPPKEQMAKDKVSLTCMITDFFPEDITV APIERTISKPKGSVRAPQVYVLPPPEEEMTKKQVTLTCMVTDFMPEDIYV SPIERTISKPKGLVRAPQVYTLPPPAEQLSRKDVSLTCLVVGFNPGDISV APIERTISKPKGRAQTPQVYTIPPPREQMSKKKVSLTCLVTNFFSEAISV
humIgG1 humIgG2 humIgG3 humIgG4 murIgG1 murIgG2A murIgG2B murIgG3	EWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMH EWESNGQPENNYKTTPPMLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMH EWESSGQPENNYNTTPPMLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMH EWZSNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQEGNVFSCSVMH EWQWNGQPAENYKNTQPIMDTDGSYFVYSKLNVQKSNWEAGNTFTCSVLH EWTNNGKTELNYKNTEPVLDSDGSYFMYSKLRVEKKNWVERNSYSCSVVH EWTSNGHTEENYKDTAPVLDSDGSYFIYSKLNMKTSKWEKTDSFSCNVRH EWERNGELEQDYKNTPPILDSDGTYFLYSKLTVDTDSWLQGEIFTCSVVH
humIgG1 humIgG2 humIgG3 humIgG4 murIgG1 murIgG2A	430 440 EALHNHYTQKSLSLSPGK EALHNHYTQKSLSLSPGK EALHNRFTQKSLSLSPGK EALHNHYTQKSLSLSLGK EGLHNHHTEKSLSHSPGK EGLHNHHTTKSFSRTPGK EGLKNYYLKKTISRSPGK

APPROVED O.G. FIG.

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APPROVED O.G. FIG.
BY CLASS SUBCLASS

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Percent Identity Among Fc Sequences

		1	2	3	4	5	6	7	8
1.	humIgG1	_	94	94	94	64	66	63	68
2	humIgG2		_	93	92	65	63	60	67
	humIgG3			_	91	64	64	61	67
	humIgG4				_	62	64	61	64
	murIgG1					-	65	61	67
	- ~~~						-	77	70
7	murIgG2B							-	68
8.	murIgG3								-

FIG._22B

humIgG1 humIgG2 humIgG3 humIgG4	PAP-PV	AGPSVFLFP: GGPSVFLFP: GGPSVFLFP:	PKPKDTLMI: PKPKDTLMI	260 SRTPEVTCVVV SRTPEVTCVVV SRTPEVTCVVV SRTPEVTCVVV	DVSHEDPEVQ DVSHEDPEVQ	FNWYV FKWYV
humIgG1 humIgG2 humIgG3 humIgG4	DGVEVH	NAKTKPREE Naktkpree	QFNSTFRVV OFNSTFRVV	310 SVLTVLHQDWI SVLTVVHQDWI SVLTVLHQDWI SVLTVLHQDWI , *	INGKEYKCKVS INGKEYKCKVS	NKALP
humIgG1 humIgG2 humIgG3 humIgG4	APIEKT	ISKTKGQPR	EPQVYTLPE	360 PSREEMTKNQVS D L PSREEMTKNQVS PSREEMTKNQVS PSQEEMTKNQVS	SLTCLVKGFYI SLTCLVKGFYI	SDIAV SDIAV
humIgG1 humIgG2 humIgG3 humIgG4	EWESNO	QPENNYKTI LODENNYNTI	PPMLDSDGS	410 SFFLYSKLTVD SFFLYSKLTVD SFFLYSKLTVD *	KSRWQQGNVF: KSRWQQGNIF:	SCSVMH
humIgG1 humIgG2 humIgG3 humIgG4	EALHNI EALHNI EALHNI	440 HYTQKSLSLS HYTQKSLSLS RFTQKSLSLS HYTQKSLSLS	SPGK SPGK	FIG2	23	